



## WORKPLACE SAFETY AND HEALTH IN MARYLAND

*From The  
National Institute for Occupational Safety and Health*



### State Profile 2002

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*Delivering on the Nation's promise:  
Safety and health at work for all people through prevention.*

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### The National Institute for Occupational Safety and Health

NIOSH is the primary federal agency responsible for conducting research and making recommendations for the prevention of work-related illness and injury. NIOSH is located in the Department of Health and Human Services in the Centers for Disease Control and Prevention. The NIOSH mission is to provide national and world leadership to prevent work-related illness, injury, disability, and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services. As part of its mission, NIOSH supports programs in every state to improve the health and safety of workers. NIOSH has developed this document to highlight recent NIOSH programs important to workers and employers in Maryland.

### The Burden of Occupational Illness and Injury in Maryland

- In Maryland, there are approximately 2.7 million individuals employed in the workforce.<sup>1</sup>
- In 2000, 84 workers died as a result of workplace injuries.<sup>2</sup>
- The construction industry had the highest number of fatalities, followed second by transportation and public utilities, and third by retail trade.<sup>2</sup>
- In 1999, the most recent year for which data are available, the rate of fatal workplace injuries was 3.1 deaths per 100,000 workers—below the national average rate of 4.5 deaths per 100,000 workers.<sup>2</sup>
- In 2000, there were 94,300 nonfatal workplace injuries and illnesses in Maryland.<sup>3</sup>

### The Cost of Occupational Injury and Illness in Maryland

In 2000, the most recent year for which data are available, a total of \$1.2 billion was paid for workers' compensation claims by Maryland private insurers, self-insured employers, and state funds.<sup>4</sup> This figure does not include compensation paid to workers employed by the federal government and also underestimates the total financial burden for private sector businesses, since only a fraction of health care costs and earnings lost through work injuries and illnesses is covered by workers' compensation. Chronic occupational illnesses like cancer are substantially under-reported in workers' compensation systems because work-relatedness is often difficult to establish.

# **How NIOSH Prevents Worker Injuries and Diseases in Maryland**

## **Health Hazard Evaluations (HHEs) and Technical Assistance**

NIOSH evaluates workplace hazards and recommends solutions when requested by employers, workers, or state or federal agencies. Since 1993, NIOSH has responded to 71 requests for HHEs in Maryland in a variety of industrial settings, including the following example:

### ***Riverdale, Maryland: Zoonotic Diseases***

In 1999, NIOSH responded to a request for an HHE by the United States Department of Agriculture, Animal and Plant Health Inspection Service, to evaluate the potential for zoonotic disease hazards to veterinary medical officers and animal care inspectors during animal welfare inspections. NIOSH investigators found safety and sanitary conditions to be highly variable at the facilities, with many hidden hazards such as unrestrained animals. They concluded that personal protective equipment provided and medical monitoring of employees were inadequate. Recommendations included minimizing contact with animals and providing comprehensive personal protective equipment, medical monitoring, and worker training programs.

## **Fatality Assessment and Control Evaluation (FACE) Investigations**

NIOSH developed the FACE program to identify work situations with a high risk of fatality and to formulate and disseminate prevention strategies. Since 1995, there have been 11 FACE investigations in Maryland.

## **Fire Fighter Fatality Investigation and Prevention Program**

The purpose of the NIOSH Fire Fighter Fatality Investigation and Prevention Program is to determine factors that cause or contribute to fire fighter deaths suffered in the line of duty. NIOSH uses data from these investigations to generate fatality investigation reports and a database of case results that guides the development of prevention and intervention activities. The following fire fighter fatality investigation was conducted in Maryland:

### ***Maryland Fire Fighter Dies from Cardiac Arrest at the Scene of a Brush Fire***

On February 15, 1999, a 50-year-old male volunteer fire fighter collapsed while responding to a brush fire. The victim had not displayed any symptoms suggestive of heart problems. Despite cardiopulmonary resuscitation and advanced life support administered on scene, en route to the hospital, and at the hospital, the victim died. To reduce their risk of on-duty heart attacks and cardiac arrests, it is recommended that fire fighters undergo annual medical evaluations and participate in wellness/fitness programs.

## **Building State Capacity**

### ***State-Based Surveillance***

NIOSH funds the Adult Blood Lead Epidemiology and Surveillance Program (ABLES) in the Maryland Department of the Environment. Through ABLES, Department of the Environment staff track and respond to cases of excessive lead exposure in adults which can cause a variety of adverse health outcomes such as kidney or nervous system damage and potential infertility.

### ***The John Hopkins Education and Research Center (ERC)***

This ERC, one of 16 NIOSH ERCs nationwide, is based at the Department of Environmental Health Sciences of the Bloomberg School of Public Health at the Johns Hopkins University. The ERC serves as a regional resource, offering graduate degree programs and continuing education in occupational medicine, occupational health nursing, industrial hygiene, and occupational injury prevention/safety sciences. In fiscal year 2001,

48 students were enrolled in graduate programs and 16 students were graduated. Twenty-eight continuing education courses were conducted for 771 practicing professionals in the region.

### ***Catonsville Community College***

The purpose of this program is to provide undergraduate education in occupational health and safety technology and management. It offers an associate degree and a state-approved college certificate in occupational safety and health. In fiscal year 2001, 28 students were enrolled and three students were graduated.

## **Extramural Programs Funded by NIOSH**

The following are examples of recent research contracts, research grants, training grants, or cooperative agreements funded by NIOSH in the state of Maryland.

### ***Impact of Social Security Disability Insurance (SSDI) Benefits on Worker Health***

It is likely that workplace injuries and illnesses are the cause of a large portion of SSDI benefits, the total cost of which has increased rapidly in the past decade. With support from NIOSH, researchers at Johns Hopkins University are examining private long-term disability claims data and large-scale surveys to assess the impact of occupational injuries and illnesses on SSDI benefit payments.

### ***Trends in Occupational Injury and Illness***

With support from NIOSH, researchers at the Pacific Institute for Research and Evaluation are analyzing 1987-1997 data from approximately 250,000 establishments regarding their injury experience each year. The study will examine and link information on drug testing, employee assistance programs, safety training, U.S. Occupational Safety and Health Administration (OSHA) inspections, and changes in state workers' compensation systems.

### ***Effects of OSHA Guidelines on Violence Prevention in Mental Health***

Workplace violence is pervasive in the mental health care setting. To address this issue, OSHA published violence prevention guidelines for health and community workers. This study by the University of Maryland will evaluate the effectiveness of these guidelines in three state mental health facilities by comparing assault rates, risk factors for assault, and worker job satisfaction one year prior to and one year following implementation of a comprehensive guideline-based violence prevention program.

*Additional information regarding NIOSH services and activities can be accessed through the NIOSH home page at <http://www.cdc.gov/niosh/homepage.html> or by calling the NIOSH 800-number at 1-800-356-NIOSH (1-800-356-4674).*

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<sup>1</sup>U.S. Department of Labor (DOL), Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics, Current Population Survey, 2000.

<sup>2</sup>DOL, BLS in cooperation with state and federal agencies, Census of Fatal Occupational Injuries, 1999-2000.

<sup>3</sup>DOL, BLS in cooperation with participating state agencies, Survey of Occupational Injuries and Illnesses, 2000.

<sup>4</sup>National Academy of Social Insurance, *Workers' Compensation: Benefits, Coverage, and Costs, 2000 New Estimates*, May 2002.

